UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/789,901	02/27/2004	Steve R. DeVos	5760-21800/VRTS0448	9306

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EXAMINER
KAPLAN, BENJAMIN A

ART UNIT	PAPER NUMBER
2139	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/789,901	DEVOS, STEVE R.
	Examiner	Art Unit	
	BENJAMIN A. KAPLAN	2139	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 May 2008*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1-24 are pending.

Response to Amendment & Arguments

2.   The rejection of claims 1-10 & 19-24 under *35 USC § 101* is withdrawn.

3.   The rejection of claim 7 under *35 USC § 112* is withdrawn.

4.   Applicant's arguments with respect to claims 1-24 have been considered but are

moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over

United States Patent No.: US 6,535,998 B1 (Cabrera et al.) in view of Microsoft®

Windows® XP Registry Guide (<u>XP Registry</u>).

<u>**As Per Claim 1:**</u> Cabrera et al. teaches:

- A computer accessible storage medium storing a plurality of instructions which,

when executed during a restore operation of a database to a computer system,

wherein the database describes a computer system configuration, and wherein a first instance of the database is included in backup data being restored and a second instance of the database exists on the computer system:

(Cabrera et al., Abstract, Lines 1-9 "A method and system for recovering from a system failure wherein the failed system is restored to a new system that has different hardware. Hardware state is preserved during a backup process, and following a failure, a restore is performed to the extent possible using that hardware state but on a system having a different hardware configuration. Rules are provided for handling the differences through selective merging, arranging, and replacement of data, with the logic and work performed transparently to the user.").

- process one or more first keys of the second instance, the one or more first keys identifying one or more second keys of the second instance, wherein identification by the one or more first keys indicates that the one or more second keys are to be preserved in the database subsequent to the restore operation

(Cabrera et al., Column 13, Lines 23-41 "In addition to disks, other hardware devices may be different in a new system. For example, if the system has changed (e.g., the original was destroyed or damaged) or one or more relatively important devices (e.g., the hard disk controller) have changed since the backup, ASR (the restore process 70) redetects any changed devices and writes them to the system registry 88. Any drivers and support for these devices are also installed as part of the setup. Note that the detection code is the same that is used during an initial setup of an

operating system (Windows) and is thus not described in detail herein. Further note that

if a special driver was present, then that driver was backed up and is available for ASR
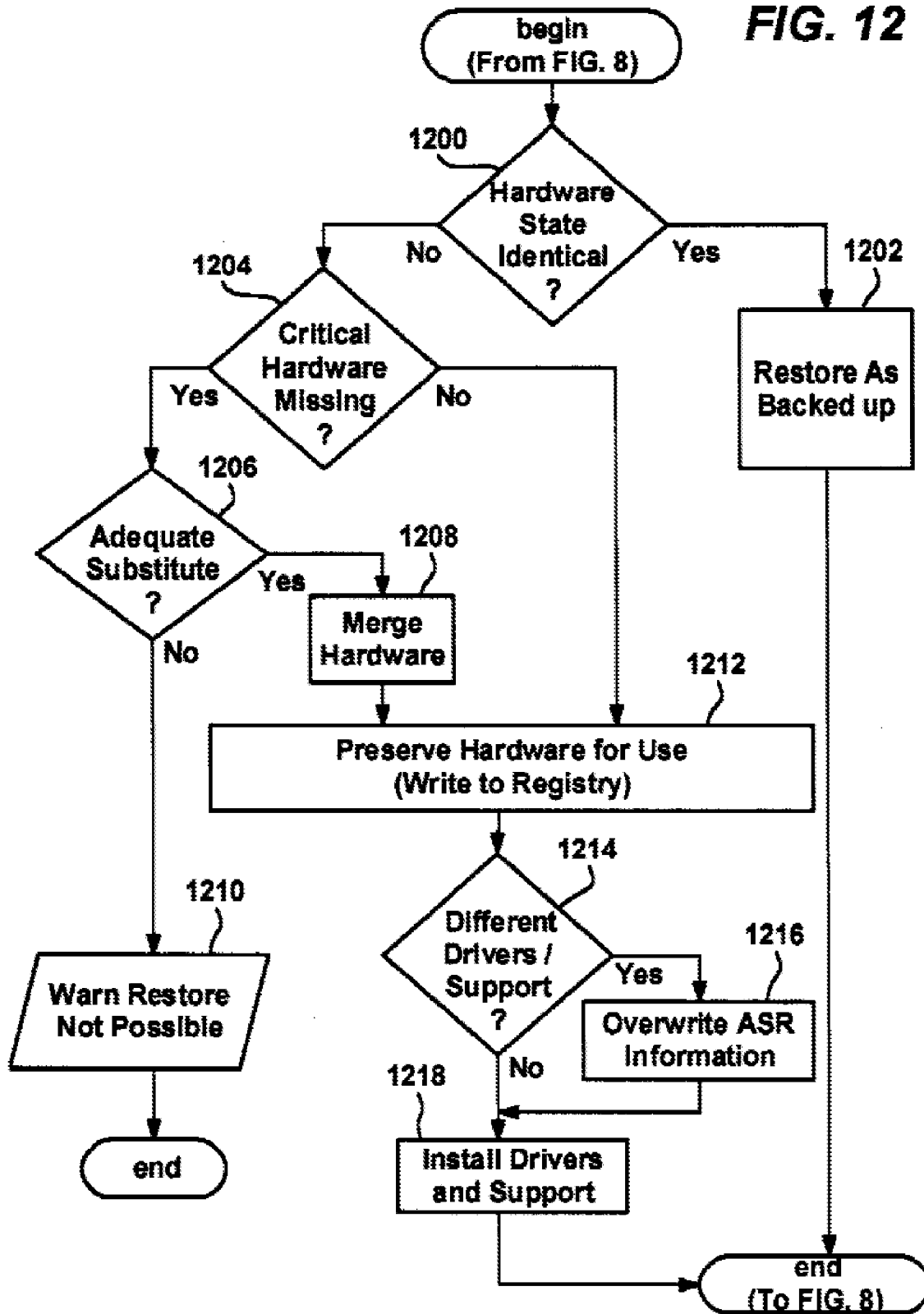
to install, as described above.

Following the redetection, the restore process 70 performs a merge with the

devices and drivers that were backed up. In general, and as represented in FIG. 12, the

logic used during the merge considers critical devices (devices that are required to start

the system, backed up in a CriticalDeviceDatabase or the like) that differ what the

backup contains and what ASR has detected.").

- if the computer system's hardware is equivalent to hardware of a source of the

backup data, process a third key, wherein the third key overrides a preservation

of at least one of the one or more second keys

(Cabrera et al., Column 13, Lines 42-47 "First, however, a test may be performed

at step 1200 to determine whether the new system is identical in hardware devices to

the former system, since if so, no device changes need to be handled. If identical, step

1202 is performed to handle any restoration that may be needed (e.g., properties set for

the devices), and the process ends.").

(Cabrera et al. Figure 12

FIG. 12

begin
(From FIG. 8)

1200

Hardware
State
Identical
?

No → 1204

Yes → 1202

1204

Critical
Hardware
Missing
?

Yes

No

1202

Restore As
Backed up

1206

Adequate
Substitute
?

Yes → 1208

No

1208

Merge
Hardware

1212

Preserve Hardware for Use
(Write to Registry)

1210

Warn Restore
Not Possible

end

1214

Different
Drivers /
Support
?

Yes → 1216

No → 1218

1216

Overwrite ASR
Information

1218

Install Drivers
and Support

end
(To FIG. 8)

).

Applicants use of the term "keys" is used in the flow of instructions during restore operations, examiner equates Cabrera et al.'s conditional statements (e.g. yes, no, determinations illustrated in figure 12. and the underlying data) as being the functional equivalents to applicant's "keys".

Cabrera et al.'s method skips preservation issues of hardware settings if the system being restored to has an identical hardware state.

Cabrera et al. does not explicitly teach:

- wherein each key of a given instance of the database is an identifier used to access information in the given instance

However the use of such key identifiers was well known in the art at the time of invention was made as shown by <u>XP Registry</u> in analogous art:

(<u>XP Registry</u>, Excerpt Page 4, Lines 1-5,

"The key *HKLM\SYSTEM\CurrentControlSet\Control\BackupRestore* contains two interesting subkeys. The first subkey, *FilesNotToBackup*, contains a list of files and folders that Backup Utility skips. Each value contains a path to skip, and those values often contain wildcards. The second subkey, *KeysNotToRestore*, contains a list of keys not to restore to the computer.").

It would have been obvious to one of ordinary skill in the art at the time of invention was made to incorporate the teachings of <u>XP Registry</u> on the use of such key identifiers in to the method of Cabrera et al. in order to take advantage of the reduction

in necessary system overhead/processing cost involved in the running of backup and restore operations.

As Per Claim 2: The rejection of claim 1 is incorporated and further Cabrera et al. teaches:

- the plurality of instructions, when executed, merge the first instance and the second instance of the database to generate a third instance, wherein the third instance comprises: (i) each of the one or more second keys from the second instance whose preservation is not overridden by the third key; and (ii) each of the one or more second keys from the first instance whose preservation is overridden by the third key

(Cabrera et al., Column 13, Lines 48-63 "If differences exist, step 1204 is performed to determine if a critical device is not present on the new system. For example, a floppy drive or CD-ROM may have the sif file thereon, and thus such a device is needed to restore the system. If no critical device is missing, step 1204 branches to step 1212 as described below. However, it is also possible that a critical device is missing, but an adequate substitute is available. For example, different floppy drives may read floppy disks, DVD-ROM drives may read CD-ROMS and so on. Thus, if missing, step 1204 branches to step 1206 to determine if such an adequate substitute exists. If no substitute exists, step 1210 is performed to inform the operator of the inability to restore the system. On the other hand, if an adequate substitute exists, step

1208 merges (substitutes) the hardware by allowing the actual state to be used instead of the state recorded in the sif file.").

As Per Claim 3: The rejection of claim 2 is incorporated and further Cabrera et al. teaches:

- the plurality of instructions, when executed, restore the third instance to the computer system

(Cabrera et al., Column 14, Lines 1-4 "If the device is non-critical to the starting of the system, or a critical device that has been merged, step 1212 preserves any different devices that ASR might have detected. This information is saved in the registry 88.").

As Per Claim 4: The rejection of claim 2 is incorporated and further Cabrera et al. teaches:

- the source comprises a second computer system

(Cabrera et al., Column 5 Line 63 – Column 6 Line 6 "As will be described below, the system state 62 is recorded on a medium (e.g., a floppy disk 68) that is readily accessible to (i.e., readable by) a newly operational, but not yet restored machine. As used herein, the readily-readable medium will be described as a floppy disk 68, but as can be readily appreciated, the medium may alternatively comprise a read-writeable

CD-ROM, network storage (e.g., in a directory of files), flash memory card, wired or wireless telephone connection, smart card and virtually anything else capable of recording and/or transmitting information to a computer system for use by a restore process 70 (FIG. 3).").

As Per Claim 5: The rejection of claim 1 is incorporated and further the computer system is what is being restored in Cabrera et al.'s method.

As Per Claim 6: The rejection of claim 1 is incorporated and further the "keys" are processed in an automated system recovery in Cabrera et al.'s method.

As Per Claim 7: The rejection of claim 6 is incorporated and further "keys" are processed during the restore operation in Cabrera et al.'s method.

As Per Claim 8: The rejection of claim 1 is incorporated and further Cabrera et al. teaches:

- a second plurality of instructions which, when executed prior to a backup operation on the source, insert the third key into the database if the third key is not found in the database

> (Cabrera et al., Column 13, Lines 42-47, as seen in the rejection of claim 1).

> (Cabrera et al., Figure 12, as seen in the rejection of claim 1).

(Cabrera et al., Column 6, Lines 29-48 "A third operation performed by the backup program 60 is to collect system registry 88 information, again via common (NT Registry) APIs 90. As is well-known, the system registry 88 essentially comprises a database of properties, settings and other information used by the operating system and applications at various times to perform various functions. For example, the registry 88 includes information on specific devices and drivers installed on this system, such as the hard disk controller and audio card. Via this set of common APIs 90 and conventions for retrieving the data stored in the registry 88, the saved registry may be recreated and/or adjusted on a restored system.").

The list of the hardware as backed up provides for the third key.

As Per Claim 9: The rejection of claim 8 is incorporated and further Cabrera et al. teaches:

- the second plurality of instructions are executed responsive to an install of the second plurality of instructions and the plurality of instructions on the source

(Cabrera et al., Column 6, Lines 29-48, as seen in the rejection of claim 8).

(Cabrera et al., Column 4, Lines 52-65 "The present invention is directed to restoring hardware state on a system that is not identical to a failed system. As such, the present invention may be incorporated into a system backup and restore process referred to as Automated System Recovery (ASR), an integrated mechanism for the backup and restoration of system state. The ASR mechanism provides a single

coherent and structured mechanism for backing up and restoring system state. The ASR mechanism is further described in the copending United States Patent Application entitled, "Automated System Recovery via Backup and Restoration of System State," assigned to the assignee of the present invention, filed concurrently herewith, and hereby incorporated by reference in its entirety.").

The ASM mechanism that provides for the backup restore is detailed at length in the incorporated patent titled "Automated System Recovery via Backup and Restoration of System State" United States Patent No.: US 6,820,214 B1.

As Per Claim 10: The rejection of claim 1 is incorporated and further Cabrera et al. teaches:

- the processor coupled to the computer accessible medium and configured to execute the plurality of instructions

(Cabrera et al., Figure 1
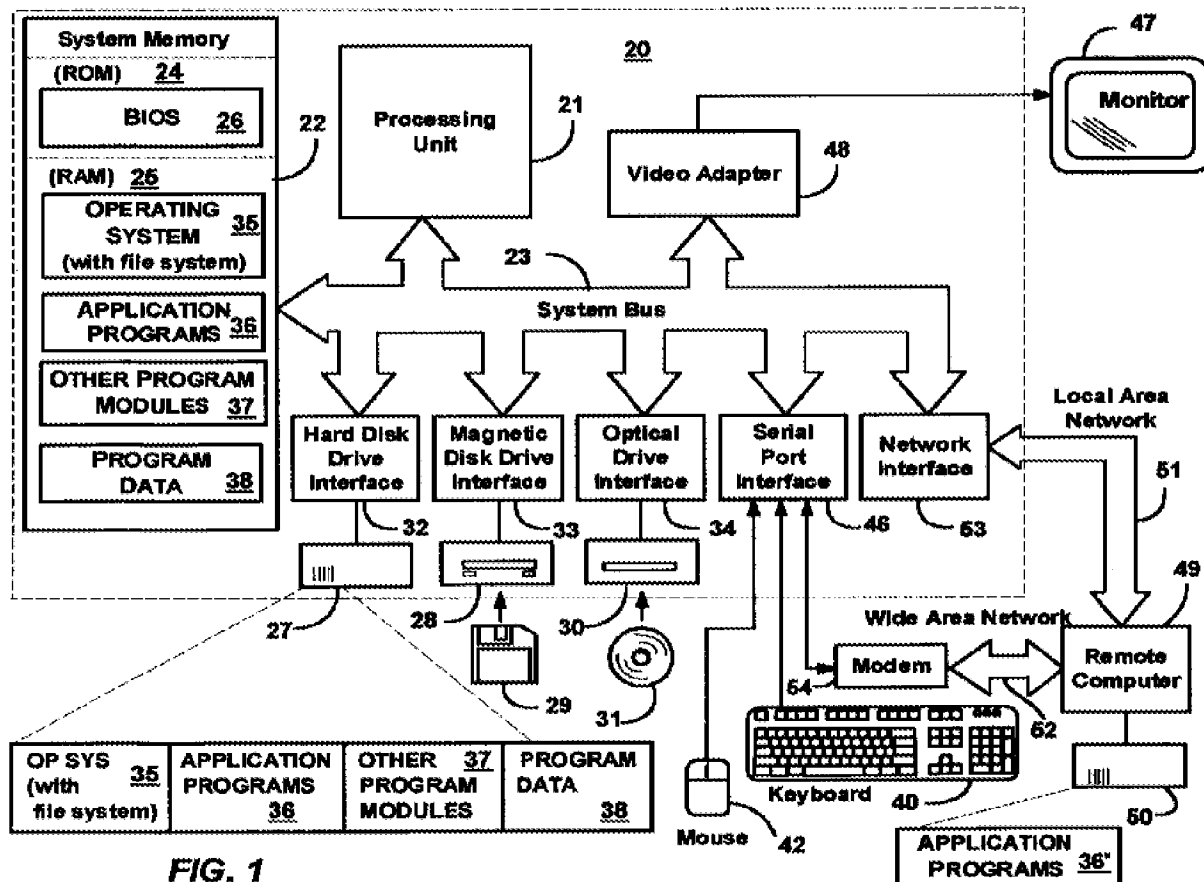
FIG. 1

).

As Per Claim 11: The limitations of claim 11 are substantially a restatement of the limitations of claim 1 as a method and are rejected under substantially the same reasoning.

As Per Claim 12: The rejection of claim 11 is incorporated and further the limitations of claim 12 are substantially a restatement of the limitations of claim 2 as a method and are rejected under substantially the same reasoning.

As Per Claim 13: The rejection of claim 12 is incorporated and further the limitations of claim 13 are substantially a restatement of the limitations of claim 3 as a method and are rejected under substantially the same reasoning.

As Per Claim 14: The rejection of claim 11 is incorporated and further the limitations of claim 14 are substantially a restatement of the limitations of claim 4 as a method and are rejected under substantially the same reasoning.

As Per Claim 15: The rejection of claim 11 is incorporated and further the limitations of claim 15 are substantially a restatement of the limitations of claim 5 as a method and are rejected under substantially the same reasoning.

As Per Claim 16: The rejection of claim 11 is incorporated and further the limitations of claim 16 are substantially a restatement of the limitations of claim 6 as a method and are rejected under substantially the same reasoning.

As Per Claim 17: The rejection of claim 16 is incorporated and further the limitations of claim 17 are substantially a restatement of the limitations of claim 7 as a method and are rejected under substantially the same reasoning.

As Per Claim 18: The rejection of claim 11 is incorporated and further the limitations of claim 18 are substantially a restatement of the limitations of claim 8 as a method and are rejected under substantially the same reasoning.

As Per Claim 19: The limitations of claim 19 are substantially a restatement of the limitations of claim 1 and are rejected under substantially the same reasoning.

As Per Claim 20: The rejection of claim 19 is incorporated and further the limitations of claim 20 are substantially a restatement of the limitations of claim 2 and are rejected under substantially the same reasoning.

As Per Claim 21: The rejection of claim 19 is incorporated and further the limitations of claim 21 are substantially a restatement of the limitations of claim 3 and are rejected under substantially the same reasoning.

As Per Claim 22: The rejection of claim 19 is incorporated and further the limitations of claim 22 are substantially a restatement of the limitations of claims 6 & 7 and are rejected under substantially the same reasoning.

As Per Claim 23: The rejection of claim 22 is incorporated and further the limitations of claim 23 are substantially a restatement of the limitations of claim 7 and are rejected under substantially the same reasoning.

As Per Claim 24: The rejection of claim 19 is incorporated and further the limitations of claim 24 are substantially a restatement of the limitations of claim 10 and are rejected under substantially the same reasoning.

Conclusion

7.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action.   Accordingly, **THIS ACTION IS MADE FINAL**.   See MPEP § 706.07(a).   Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action.   In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action.   In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BENJAMIN A. KAPLAN whose telephone number is (571)270-3170. The examiner can normally be reached on 7:30 a.m. - 5:00 p.m. E.S.T..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kristine Kincaid can be reached on 571-272-4063. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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